

In the Specification

On page 4, please replace the first sentence of the second paragraph with the following:

- Figures 1A-1C represents the Northern blot analysis, the nucleotide sequences and the deduced amino acid sequence, as well as the hydrophobicity profile of TWIK-1 (SEQ ID NO:1).

Please replace the first sentence in the paragraph spanning pages 4 and 5 with the following:

- Figures 2A-2B represents the sequence alignments.

Please replace the first sentences in the first and second paragraphs on page 7 with the following:

- Figures 8A-8B (~~which consists of 8A and 8B, an enlargement of 8A~~) show the nucleotide and deduced amino acid sequences of human TASK (SEQ ID NO:3) and partial amino acid sequence of mouse TASK (SEQ ID NO:5).

- Figures 9A-9B shows the sequence comparison and membrane topology of TWIK-related channels.

Please replace paragraphs three through seven (3-7), first sentence in each paragraph, with the following:

Figures 3A-3F shows the biophysical and pharmacological properties of K⁺ currents

recorded by the imposed voltage technique on *Xenopus* oocytes that had received an injection of TWIK-1 cRNA; (a): the oocyte was maintained at a holding potential (HP) of -80 mV and the currents were recorded at the end of 1-s voltage jumps from -120 to $+60$ mV in 20 mV increments.

- Figures 4A-4C shows the influence of the expression TWIK-1 on the membrane potential.

- Figures 5A-5D shows the properties of the single TWIK-1 channel.

- Figures 6A-6C shows the blocking of the TWIK-1 channels by the internet pH.

- Figures 7A-7D shows the activation of the TWIK-1 channels by PMA, activator of protein kinase C.

Please replace paragraphs eleven through thirteen (11-13), first sentence in each paragraph, with the following:

- Figures 11A-11D shows the distribution of TASK mRNA in adult mouse.

- Figures 12A-12F shows the biophysical properties of TASK in *Xenopus* oocytes and COS cells.

- Figures 13A-13D shows the pH dependent regulation of TASK in *Xenopus* oocytes and COS cells.